

8331
008322



Dart Aerospace Ltd.
1270 Aberdeen St
Hawkesbury, ON
K6A 1K7
Canada

Tel (613) 632-5200
Fax 613 632-5246

RBE350A93-3303-02
Job Sheet 188418



Part No: RBE350A93-3303-02

Job Qty: 5 pcs

Part Name: Tail Rotor Head Body Extractor Tool



Part Weight: 0 lbs

Status: New

Priority: Medium

Job Created: 1/9/19

Job Tracking No:

Due Date: 1/31/19

Created By: Marie Lajeunesse

Type: SOLD

Description:

Note: RBE350A93-3303-02 REV 4 IPP REV A 18-01-17 NEW ISSUE JFC VERIFIED DP

Ship Via:

Bill of Materials

Job Routing

Op No	Operation	Qty	Start Date	Due Date	Standard		Workcenter/Supplier		Sign-off
					Setup Hrs	Run Hrs	Workcenter / Supplier	Lead Time	
100	Small Fab - 1	5 pcs	1/31/19	0.08	5.00		Small Fab - 1	EXT LOAD - 1	AP 2019/02/26
							Small Fab - 2		
							Small Fab - 3		
							Small Fab - 4		
							Small Fab - 5		
							Small Fab - 6		
							Small Fab - 7		
110	QC 5	5 pcs	1/31/19	0.00	0.00		QC 5 - 10		Michel
							QC 5 - 12		
							QC 5 - 17		
							QC 5 - 18		
							QC 5 - 19		
							QC 5 - 22		
							QC 5 - 24		
							QC 5 - 3		
							QC 5 - 38		
							QC 5 - 42		
							QC 5 - 43		
							QC 5 - 49		
							QC 5 - 51		
							QC 5 - 58		
							QC 5 - 68		
130	Packaging 3-1 - Stock - B4B	5 pcs	1/31/19	0.00	0.00		Packaging 3 - 1 - B4B		DAS 40 9-89
							Packaging 3 - 2 - B4B		
							Packaging 3 - 3 - B4B		
							Packaging 3 - 4 - B4B		
							Packaging 3 - 5 - B4B		
							Packaging 3 - 6 - B4B		



Dart Aerospace Ltd.
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CANADA
TEL.: 1 613 632-5200
Email: sales@dartaero.com
www.dartaerospace.com

Container No: S156784



Part: RBE350A93 - 3303 - 02

Job No: 188418

Serial No/Batch: S156784

Revision: 4

Inspector:

Exp Date:

Instructions:

Date: 02/26/19

DAS 40 9-89

DAS 28 9-89

MAR 05 2019

					Packaging 3 - 7 - B4B	
					Packaging 3 - 8 - B4B	
					Packaging 3 - 9 - B4B	
					Packaging 3 - 10 - B4B	
					Packaging 3 - 11 - B4B	
					Packaging 3 - 12 - B4B	
					Packaging 3 - 13 - B4B	
					Packaging 3 - 14 - B4B	
					Packaging 3 - 15 - B4B	
					Packaging 3 - 16 - B4B	
					Packaging 3 - 17 - B4B	
					Packaging 3 - 18 - B4B	
					Packaging 3 - 19 - B4B	
					Packaging 3 - 20 - B4B	
					Packaging 3 - 21 - B4B	
					Packaging 3 - 22 - B4B	
					Packaging 3 - 23 - B4B	
					Packaging 3 - 24 - B4B	
					Packaging 3 - 25 - B4B	
					Packaging 3 - 26 - B4B	
					Packaging 3 - 27 - B4B	
					Packaging 3 - 28 - B4B	
					Packaging 3 - 29 - B4B	
					Packaging 3 - 30 - B4B	
					Packaging 3 - 31 - B4B	
					Packaging 3 - 32 - B4B	
					Packaging 3 - 33 - B4B	
					Packaging 3 - 34 - B4B	
					Packaging 3 - 35 - B4B	
					Packaging 3 - 36 - B4B	
140	QC 21 - FG	5 pcs	1/31/19	0.00 0.00	QC 21 - FG - 21	DAS 21 MAR 06 2019
					QC 21 - FG - 70	2-89
Part Op 100 - (Small Fab) - Assemble as per DWG. Sheet 1 -Loctite 262 B <u>M138904</u> Exp: <u>04-20</u> Descriptions: 110 - (QC5- Inspect part completeness to step on W/O) 130 - (Identify as per dwg & Stock Location: _____) 140 - (QC21- Final Inspection - Work Order Release)						
Job BOM						
Part / Item	Component Name	Quantity	Operation	Container		
91030A031	41 Flange Hex Nut	10 Ea (2 ea)	100-Small Fab - 1	9145 158		
RBE350A93-3303-02-1	7 Receiver	5 Ea (1 ea)	100-Small Fab - 1	5109 780		5
RBE350A93-3303-02-3	6 Extractor	5 pcs (1 ea)	100-Small Fab - 1	5109 781		5
RBE350A93-3303-02-5	67 Extractor Pin	5 pcs (1 ea)	100-Small Fab - 1	5086 784		
RBE350A93-3303-02-7	14 Stud	10 pcs (2 ea)	100-Small Fab - 1	5102 649		40
Job Allocations						
Operation	Component Part	Required	Inventory	Allocated		
100-Small Fab - 1	91030A031	10	45	0		
	RBE350A93-3303-02-1	5	19	0		
	RBE350A93-3303-02-3	5	18	0		
	RBE350A93-3303-02-5	5	22	0		
	RBE350A93-3303-02-7	10	17	0		
Part Specifications						
Specifications could not be found.						



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RBE350A93-3303-02

Job Sheet 188418



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100	Small Fab - 1	10 pcs	1/31/19		0.08	10.00	Small Fab - 1	
							Small Fab - 2	
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							Small Fab - 6	
							Small Fab - 7	<i>Michel</i>
110	QC 5	10 pcs	1/31/19		0.00	0.00	QC 5 - 10	
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							QC 5 - 38	
							QC 5 - 42	
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							QC 5 - 58	
							QC 5 - 68	
							QC 5 - 9	
							QC 5 - 50	
							QC 5 - 30	
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							Packaging 3 - 2 - B4B	
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							Packaging 3 - 4 - B4B	
							Packaging 3 - 5 - B4B	
							Packaging 3 - 6 - B4B	
							Packaging 3 - 7 - B4B	

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____	DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐	AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coor. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐																																																																														
Date :	Step #:	QTY Effective :		MRB (QSI042) Approval																																																																												
Description Work Order Deviation		Disposition			Completed By																																																																											
					Lead hand / Supervisor Approval Verification																																																																											
					QC / QA Coordinator Approval																																																																											
<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th colspan="3" style="text-align: left;">Root Cause</th> <th colspan="4" style="text-align: left;">FAULT CATEGORY</th> </tr> </thead> <tbody> <tr> <td style="width: 15%;">Environment ☐</td> <td style="width: 15%;">No Re-verification ☐</td> <td style="width: 15%;">Pressure/Forced ☐</td> <td style="width: 15%;">Temperature/Cure ☐</td> <td style="width: 15%;">Power Loss/Surge ☐</td> <td style="width: 15%;">Positioned Wrong ☐</td> </tr> <tr> <td>Design ☐</td> <td>Operator ☐</td> <td>Bending ☐</td> <td>Set-up ☐</td> <td>Folio/Program ☐</td> <td>Outside Dimensions ☐</td> </tr> <tr> <td>Doc/Data ☐</td> <td>Offset/Setup ☐</td> <td>Centre Not Concentric ☐</td> <td>BOM/Route ☐</td> <td>Grain ☐</td> <td>Over/Under tolerance ☐</td> </tr> <tr> <td>Equip/Tooling ☐</td> <td>Supplier ☐</td> <td>Cracks ☐</td> <td>Broken/Damage/Defect ☐</td> <td>Weld ☐</td> <td>Part Incorrect ☐</td> </tr> <tr> <td>Handling/Pre ☐</td> <td>Training ☐</td> <td>Crimp/Kink/Ripple/Wave ☐</td> <td>Inspection Incomplete/Unqualified ☐</td> <td>Wrong Stock Pulled ☐</td> <td>Part Lost/Missing ☐</td> </tr> <tr> <td>Material ☐</td> <td>Use for Testing ☐</td> <td>Cuffs ☐</td> <td>Contamination ☐</td> <td>Out of Sequence ☐</td> <td>Part Moved ☐</td> </tr> <tr> <td>Internal Transport ☐</td> <td>Poor Information ☐</td> <td>Crushing ☐</td> <td>Countersink ☐</td> <td>Off-set ☐</td> <td>Drawing ☐</td> </tr> <tr> <td>Tribal Knowledge ☐</td> <td>Rushing ☐</td> <td>Heat Treat ☐</td> <td>Cut Too Short ☐</td> <td>Mislabeled ☐</td> <td>Finish ☐</td> </tr> <tr> <td>LOA ☐</td> <td>Product Improvement ☐</td> <td>Wave/Twist in Tube ☐</td> <td>Instructions Incomplete/Unclear ☐</td> <td>Fit/Function ☐</td> <td>Misread ☐</td> </tr> <tr> <td>Substation ☐</td> <td>Process Improvement ☐</td> <td>Marks/Chatter ☐</td> <td>Drill Holes ☐</td> <td>Misaligned/off center ☐</td> <td>Turning Sequence ☐</td> </tr> <tr> <td>Past Expiry Date ☐</td> <td>Manufacturing Process ☐</td> <td colspan="4" rowspan="2" style="vertical-align: top;">OTHER : _____</td> </tr> <tr> <td>Misidentified ☐</td> <td>Past Due ☐</td> </tr> </tbody> </table>						Root Cause			FAULT CATEGORY				Environment ☐	No Re-verification ☐	Pressure/Forced ☐	Temperature/Cure ☐	Power Loss/Surge ☐	Positioned Wrong ☐	Design ☐	Operator ☐	Bending ☐	Set-up ☐	Folio/Program ☐	Outside Dimensions ☐	Doc/Data ☐	Offset/Setup ☐	Centre Not Concentric ☐	BOM/Route ☐	Grain ☐	Over/Under tolerance ☐	Equip/Tooling ☐	Supplier ☐	Cracks ☐	Broken/Damage/Defect ☐	Weld ☐	Part Incorrect ☐	Handling/Pre ☐	Training ☐	Crimp/Kink/Ripple/Wave ☐	Inspection Incomplete/Unqualified ☐	Wrong Stock Pulled ☐	Part Lost/Missing ☐	Material ☐	Use for Testing ☐	Cuffs ☐	Contamination ☐	Out of Sequence ☐	Part Moved ☐	Internal Transport ☐	Poor Information ☐	Crushing ☐	Countersink ☐	Off-set ☐	Drawing ☐	Tribal Knowledge ☐	Rushing ☐	Heat Treat ☐	Cut Too Short ☐	Mislabeled ☐	Finish ☐	LOA ☐	Product Improvement ☐	Wave/Twist in Tube ☐	Instructions Incomplete/Unclear ☐	Fit/Function ☐	Misread ☐	Substation ☐	Process Improvement ☐	Marks/Chatter ☐	Drill Holes ☐	Misaligned/off center ☐	Turning Sequence ☐	Past Expiry Date ☐	Manufacturing Process ☐	OTHER : _____				Misidentified ☐	Past Due ☐
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					Packaging 3 - 9 - B4B	
					Packaging 3 - 10 - B4B	
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					Packaging 3 - 13 - B4B	
					Packaging 3 - 14 - B4B	
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					Packaging 3 - 16 - B4B	
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					Packaging 3 - 30 - B4B	
					Packaging 3 - 31 - B4B	
					Packaging 3 - 32 - B4B	
					Packaging 3 - 33 - B4B	
					Packaging 3 - 34 - B4B	
					Packaging 3 - 35 - B4B	
					Packaging 3 - 36 - B4B	
140	QC 21 - FG	10 pcs	1/31/19	0.00 0.00	QC 21 - FG - 21	
					QC 21 - FG - 70	

Part Op 100 - (Small Fab) -Assemble as per DWG. Sheet 1 -Loctite 262 B M138904 Exp: 04-20
 Descriptions: 110 - (QC5- Inspect part completeness to step on W/O)
 130 - (Identify as per dwg & Stock Location: _____)
 140 - (QC21- Final Inspection - Work Order Release)

Job BOM

Part / Item	Component Name	Quantity	Operation	Container
91030A031	Flange Hex Nut	20 Ea (2 ea)	100-Small Fab - 1	5145158
RBE350A93-3303-02-1	Receiver	10 Ea (1 ea)	100-Small Fab - 1	5109780
RBE350A93-3303-02-3	Extractor	10 pcs (1 ea)	100-Small Fab - 1	5109781
RBE350A93-3303-02-5	Extractor Pin	10 pcs (1 ea)	100-Small Fab - 1	5076784
RBE350A93-3303-02-7	Stud	20 pcs (2 ea)	100-Small Fab - 1	5102649

Job Allocations

Operation	Component Part	Required	Inventory	Allocated
100-Small Fab - 1	91030A031	20	5	0
	RBE350A93-3303-02-1	10	9	0
	RBE350A93-3303-02-3	10	8	0
	RBE350A93-3303-02-5	10	22	0
	RBE350A93-3303-02-7	20	17	0

Part Specifications

Specifications could not be found.

Plex 1/9/19 12:44 PM Dart.lajeunesse.marie

GA067
GA140A
GA140A
GA141A
GA141A

(15) 5076784
(42) 5075438
02-5

1031 31
⑤ 5084061
26 5145158

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

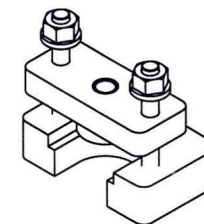
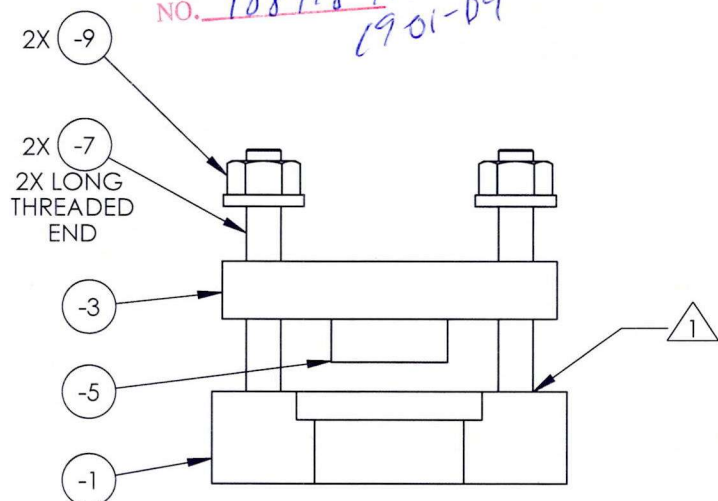
QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐					
Date :		Step #:		QTY Effective :			MRB (QSI042) Approval		
Description Work Order Deviation				Disposition				Completed By	
								Lead hand / Supervisor Approval Verification	
								QC / QA Coordinator Approval	
Root Cause Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐ No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐		FAULT CATEGORY Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐ Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐ Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Misabeled ☐ Fit/Function ☐ Misaligned/off center ☐ Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐							
OTHER :									

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WITHOUT NOTICE
WORK ORDER
NO. 188418 MJS
1901-09



REVISIONS					
REV	ECR	DESCRIPTION	DATE	INITIAL	APPROVED
1		CH'D FROM HEX BOLTS & SET SCREWS TO STUDS. -1 ADDED R.25 TO CORNERS. -3 CH'D HOLES FROM Ø.413 AND ADDED R.25 TO CORNERS.	12/4/2008	WP	DW
2		-11 ADDED LOCTITE TO BOM. -5 ADDED .03 X 45° CHAMFER.	12/4/2008	WP	DW
2A		CORRECTED T/N AND TOOL NAME WAS RBEA93-3303-02, T/R HUB BODY EXTRACTOR TOOL IS RBE350A93-3303-02, T/R BODY EXTRACTOR TOOL.	11/5/2013	RJC	RW
3		-3 CH'D DIMS WAS Ø.500 IS LIMITS Ø.5000 - .5005, WAS .630 IS (.625). -5 CH'D DIM WAS Ø.501 IS Ø.5010 - .5015. -9 CH'D WAS SWIVEL HEX NUT #90477A031 IS FLANGE HEX NUT #91030A031.	3/13/2014	DPD	GE
4	15-0132	-1 & -3 CH'D MATERIAL WAS 1018 IS A36/1018/1020. -5 CH'D MATERIAL WAS 4140 G&P IS 4140/4142 Q&T.	6/10/2015	RJC	JAG

NOTE:

1 2X LOCTITE ON THREADS -7 TO -1.

ASSY QTY	ASSY QTY	B/O	Part #	UNIT QTY	Description	Material	B/O INFORMATION OR SPECIFICATIONS	PG.
			-1	1	RECEIVER	A36/1018/1020		2
			-3	1	EXTRACTOR	A36/1018/1020		3
			-5	1	EXTRACTOR PIN	4140/4142 Q&T		4
			-7	2	STUD	STEEL	3/8-16 UNC-2A X 4 (MCMASTER-CARR #90281A640) MODIFIED	5
		B/O	-9	2	FLANGE HEX NUT	STEEL	3/8-16 UNC-2B (MCMASTER-CARR #91030A031)	1
		B/O	-11	AR	262 LOCTITE		(MCMASTER-CARR #91458A180)	N/S

DART AEROSPACE	
TITLE T/R BODY EXTRACTOR TOOL	
DWG NO. RBE350A93-3303-02	REV 4
MAT'L UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES .XXX ± .005 FRACTIONS ± 1/8 .XX ± .01 ANGLES ± 5° .X ± .1	DRAWN BY: PERRITT APPROVED: <i>D Weil</i> HEAT TREAT FINISH SPEC USED ON MODEL EUROCOPTER AS350A
1. BREAK ALL SHARP EDGES .015 x 45° OR .015R 2. DIMENSIONAL LIMITS APPLY AFTER PLATING	
SCALE 1:2	DATE 10/27/2008 SHEET 1 OF 5